Amendments to the Claims:

1. (currently amended) A method for producing platform molecules comprising:

providing a first phenylene ring comprising a first functional group at a para-position to a second functional group;

providing a second phenylene ring comprising a third functional group at a para- position to a fourth functional group;

providing a third phenylene ring comprising a desired substituent and comprising a first functionality at a para- position to a second functionality; and

reacting said first functional group with said first functionality, producing at least a first ester bond between said first phenylene ring and said third phenylene ring; and

reacting said third functional group with said third functionality, producing at least a second ester bond between said second phenylene ring and said third phenylene ring, thereby producing platform molecules comprising a first terminal functionality at position para- to said first ~~intervening~~ ester bond and a second terminal functionality at a position para- to said second ~~intervening~~ ester bond, wherein at least one functionality selected from the group consisting of said first terminal functionality and said second terminal functionality is other than a polymerizable group;

wherein, when both said first terminal functionality and said second functionality are polymerizable groups, said desired substituent provides sufficient steric hindrance to achieve a nematic state at room temperature while suppressing crystallinity at room temperature.

2. (previously presented) The method of claim 1 wherein both said first terminal

functionality and said second terminal functionality are other than polymerizable groups.

3. (currently amended) A method for producing platform molecules comprising:

providing a first phenylene ring comprising a first functional group at a para-position to a second functional group;

providing a second phenylene ring comprising a third functional group at a para-position to a fourth functional group;

providing a third phenylene ring comprising a desired substituent and comprising a first hydroxyl group at a para- position to a second hydroxyl group; and

reacting said first hydroxyl group with said first functional group, producing at least a first ester bond between said first phenylene ring and said third phenylene ring; and

reacting said second hydroxyl group with said third functional group, producing at least a second ester bond between said second phenylene ring and said third phenylene ring, thereby producing platform molecules comprising a first terminal functionality at position para- to said first ester bond and a second terminal functionality at a position para- to said second ester bond, wherein at least one functionality selected from the group consisting of said first terminal functionality and said second terminal functionality is other than a polymerizable group;

~~wherein, if one of said first terminal functionality or said second terminal functionality is a polymerizable group;~~

wherein, ~~if~~ when both said first terminal functionality and said second functionality are polymerizable groups, said desired substituent provides sufficient steric hindrance to achieve a nematic state at room temperature while suppressing crystallinity at

room temperature.

4. (previously presented) The method of claim 3 wherein both said first terminal functionality and said second terminal functionality are other than polymerizable groups.

5. (previously presented) The method of claim 1 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

6. (previously presented) The method of claim 2 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

7. (previously presented) The method of claim 3 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

8. (previously presented) The method of claim 4 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

9. (previously presented) The method of claim 1 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

10. (previously presented) The method of claim 1 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

11. (previously presented) The method of claim 1 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

12. (previously presented) The method of claim 2 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

13. (previously presented) The method of claim 2 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

14. (previously presented) The method of claim 2 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

15. (previously presented) The method of claim 3 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

16. (previously presented) The method of claim 3 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

17. (previously presented) The method of claim 3 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

18. (previously presented) The method of claim 1 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

19. (previously presented) The method of claim 2 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

20. (currently amended) A method for producing platform molecules comprising: providing a first phenylene ring comprising a first functional group at a para-position to a

second functional group;

providing a second phenylene ring comprising a third functional group at a para- position to a fourth functional group, said second functional group and said fourth functional group ~~are~~being selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups;

providing a third phenylene ring comprising a desired substituent and comprising a first hydroxyl group at a para- position to a second hydroxyl group; and

reacting said first hydroxyl group with said first functional group, producing at least a first ester bond between said first phenylene ring and said third phenylene ring; and

reacting said second hydroxyl group with said third functional group, producing at least a second ester bond between said second phenylene ring and said third phenylene ring, thereby producing platform molecules comprising a first terminal functionality at position para- to said first ester bond and a second terminal functionality at a position para- to said second ester bond, wherein at least one functionality selected from the group consisting of said first terminal functionality and said second terminal functionality is other than a polymerizable group;

wherein, when both said first terminal functionality and said second functionality are polymerizable groups, said desired substituent provides sufficient steric hindrance to achieve a nematic state at room temperature while suppressing crystallinity at room temperature.

21. (previously presented) The method of claim 4 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and

reactive derivatives of carboxyl groups.

22. (previously presented) The method of claim 7 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

23. (previously presented) The method of claim 16 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

24. (previously presented) The method of claim 17 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

25. (previously presented) The method of claim 18 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

26. (currently amended) A method for producing platform molecules comprising:

providing a first phenylene ring comprising a first functional group at a para-position to a second functional group;

providing a second phenylene ring comprising a third functional group at a para- position to a fourth functional group;

providing a third phenylene ring comprising a desired substituent and comprising a first functionality at a para- position to a second functionality; and

reacting said first functional group with said first functionality, producing at least a first ester bond between said first phenylene ring and said third phenylene ring; and

reacting said third functional group with said third functionality, producing at least a

second ester bond between said second phenylene ring and said third phenylene ring, thereby producing platform molecules comprising a first terminal functionality at position para- to said first ester bond and a second terminal functionality at a position para- to said second ester bond, wherein at least one functionality selected from the group consisting of said first terminal functionality and said second terminal functionality is other than a polymerizable group;

wherein, when both said first terminal functionality and said second functionality are polymerizable groups, said desired substituent provides sufficient steric hindrance to achieve a nematic state at room temperature while suppressing crystallinity at room temperature;

~~The method of claim 1 further comprising~~

forming a mixture comprising said platform molecules and at least a fourth phenylene ring comprising a fifth functional group at a position para- to a sixth functional group; and

exposing said mixture to conditions effective to form at least a third ester bond between said fourth phenylene ring and a ring selected from the group consisting of said first phenylene ring and said second phenylene ring, thereby producing elongated platform molecules comprising at least four phenylene rings and comprising a new terminal functionality at a position para- to said third ester bond.

27.-28. (Canceled).

29. (currently amended) The method of claim ~~27~~157 wherein both said first terminal functionality and said second functionality are other than polymerizable groups.

30. (currently amended) The method of claim ~~28~~158 wherein both said first terminal functionality and said second functionality are other than polymerizable groups.

31. (currently amended) The method of claim ~~27~~157 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

32. (currently amended) The method of claim ~~28~~158 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

33. (previously presented) The method of claim 29 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

34. (previously presented) The method of claim 30 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

35. (currently amended) The method of claim ~~27~~157 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

36. (currently amended) The method of claim ~~27~~157 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

37. (currently amended) The method of claim ~~27~~157 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

38. (currently amended) The method of claim ~~28~~158 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

39. (currently amended) The method of claim ~~28~~158 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

40. (currently amended) The method of claim ~~28~~158 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

41. (previously presented) The method of claim 29 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

42. (previously presented) The method of claim 29 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

43. (previously presented) The method of claim 29 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

44. (previously presented) The method of claim 30 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

45. (previously presented) The method of claim 30 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

46. (previously presented) The method of claim 30 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

47. (currently amended) The method of claim ~~27~~157 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and

reactive derivatives of carboxyl groups.

48. (currently amended) The method of claim ~~28~~158 wherein said second functional group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

49. (previously presented) The method of claim 29 wherein said second reactive group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

50. (previously presented) The method of claim 30 wherein said second reactive group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

51. (previously presented) The method of claim 31 wherein said second reactive group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

52. (previously presented) The method of claim 32 wherein said second reactive group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

53. (previously presented) The method of claim 35 wherein said second reactive group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

54. (previously presented) The method of claim 40 wherein said second reactive group and said fourth functional group are selected from the group consisting of carboxyl groups and reactive derivatives of carboxyl groups.

55. (currently amended) The method of claim ~~27~~157 further comprising:

forming a mixture comprising said platform molecules and at least fourth phenylene rings comprising a fifth functional group at a para- position to a sixth functional group; and

exposing said mixture to conditions effective to form at least a third ester bond between said fourth phenylene ring and a ring selected from the group consisting of said first phenylene ring and said second phenylene ring, thereby producing elongated platform molecules comprising at least four phenylene rings and comprising a new terminal functionality at a position para- to said third ester bond.

56. (currently amended) The method of claim ~~27~~157 wherein said polymerizable group comprises a polymerizable unsaturated carbon-carbon bond.

57.-152. (Cancelled).

153. (previously presented) The method of claim 1 wherein said first terminal functionality and said second terminal functionality are independently selected from the group consisting of polymerizable groups, hydroxyl groups, amino groups, sulfhydryl groups, halogen atoms, H-$(CH_2)_n$-O- groups, Cl$(CH_2)_n$-O- groups, Br$(CH_2)_n$-O- groups, I$(CH_2)_n$-O-, wherein n is from about 2 to about 12 and CH_2 independently can be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

154. (previously presented) The method of claim 3 wherein said first terminal functionality and said second terminal functionality are independently selected from the group consisting of polymerizable groups, hydroxyl groups, amino groups, sulfhydryl groups, halogen atoms, H-$(CH_2)_n$-O- groups, Cl$(CH_2)_n$-O- groups, Br$(CH_2)_n$-O- groups, I$(CH_2)_n$-O-, wherein n is from about 2 to about 12 and CH_2 independently can be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

155. (Currently amended) The method of claim ~~27~~157 wherein said first terminal

functionality and said second terminal functionality are independently selected from the group consisting of polymerizable groups, hydroxyl groups, amino groups, sulfhydryl groups, halogen atoms, H-$(CH_2)_n$-O- groups,, Cl$(CH_2)_n$-O- groups, Br$(CH_2)_n$-O- groups, I$(CH_2)_n$-O-, wherein n is from about 2 to about 12 and CH_2 independently can be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

156. (currently amended) The method of claim ~~28~~158 wherein said first terminal functionality and said second terminal functionality are independently selected from the group consisting of polymerizable groups, hydroxyl groups, amino groups, sulfhydryl groups, halogen atoms, H-$(CH_2)_n$-O- groups, Cl$(CH_2)_n$-O- groups, Br$(CH_2)_n$-O- groups, I$(CH2)_n$-O-, wherein n is from about 2 to about 12 and CH_2 independently can be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

157. (New) The method of claim 1 further comprising

forming a mixture comprising said first phenylene rings, said second phenylene rings, and said third phenylene rings;

exposing said mixture to conditions effective to react said first functional group with said first functionality and to react said second functional group with said third functionality.

158. (New) The method of claim 157 wherein said first functionality and said second functionality are hydroxyl groups.

159. (New) The method of claim 29 wherein said first functionality and said second functionality are hydroxyl groups.

160. (New) The method of claim 20 wherein both said first terminal functionality and said second terminal functionality are other than polymerizable groups.

161. (New) The method of claim 20 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

162. (New) The method of claim 20 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

163. (New) The method of claim 20 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

164. (New) The method of claim 20 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

165. (New) The method of claim 160 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

166. (New) The method of claim 160 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

167. (New) The method of claim 160 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

168. (New) The method of claim 160 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

169. (New) The method of claim 26 wherein said first functionality and said second functionality are hydroxyl groups.

170. (New) The method of claim 26 wherein both said first terminal functionality and said second terminal functionality are other than polymerizable groups.

171. (New) The method of claim 169 wherein both said first terminal functionality and

said second terminal functionality are other than polymerizable groups.

172. (New) The method of claim 26 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

173. (New) The method of claim 26 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

174. (New) The method of claim 26 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

175. (New) The method of claim 26 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

176. (New) The method of claim 169 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

177. (New) The method of claim 169 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to 6 carbon atoms and aryl groups.

178. (New) The method of claim 169 wherein said desired substituent is selected from the group consisting of alkyl groups having from about 1 to about 4 carbon atoms and phenyl groups.

179. (New) The method of claim 169 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and phenyl groups.

180. (New) The method of claim 171 wherein said desired substituent is selected from the group consisting of a methyl group and a t-butyl group.

181. (New) The method of claim 171 wherein said desired substituent is selected from the group consisting of methyl groups, t-butyl groups, isopropyl groups, secondary butyl groups, and

phenyl groups.